retical aspects are by no means neglected. The many charts and tables relating to actual operating conditions form a very useful feature of each chapter and the section on boiler plant is dealt with at the length which the subject warrants.

A large number of diagrams and illustrations add value to the work in aiding the text and simplifying descriptive matter and an extensive bibliography at the end of each chapter is particularly valuable, enabling the reader to obtain further detailed information on any particular subject should he so desire.

This is a work very well suited to the present time when great emphasis is being laid on the rehabilitation and construction of generating stations and plant. It should prove most useful to experienced engineers as a work of reference, and to students in broadening their engineering outlook, if they can afford to indulge in this luxury. J. G. S. F.

James Clerk Maxwell, F.R.S. By R. L. Smith-Rose, D.Sc., Ph.D., M.I.E.E.
(Longmans, Green. 1s. 6d. Pp. 34.)

This biographical essay describes the contributions made to science by James Clerk Maxwell during the nineteenth century. It is published for the British Council, being one of the "Science in Britain" series, surveying scientific activity in Britain.

The essay, written in a pleasing style, is divided into sixteen sections. The opening remarks deal with the development of the natural sciences up to the time of Maxwell's birth. This is followed by an account of his early life and education at the Universities of Edinburgh and Cambridge, leading on to a description of his activities at Aberdeen and London, where all his more important work was done.

There follows a description of Maxwell's work in founding the Cavendish Laboratory at Cambridge, after which several sections are devoted to non-mathematical treatments of Electricity and Magnetism, the Electro-magnetic Theory of Light and Electro-magnetic Waves and Radio, showing how Maxwell laid the foundations of an elegant theory of electricity and magnetism in a manner so thorough and so sound that they have long been universally accepted. Altogether a very readable appreciation of a man who, in the short span of forty-eight years, achieved an outstanding position in the history of science. M. E. C.

Television. By M. G. Scroggie, B.Sc., M.I.E.E. (2nd Ed.)
(Blackie. 6s. Pp. 77.)

The increasing popularity of television has resulted in the appearance of a number of books on the subject, ranging from the popular to the highly technical. The present book, actually a second edition of a work first written in 1935, can best be described as an authoritative technical summary.

In eight chapters and 77 pages it deals first with the basic principles of television and some of the early attempts to achieve the required results, and then shows how the application of the cathode-ray tube provides a practical solution to the problems both at the transmitting and receiving ends.

The form of the television signal is then discussed in detail, followed by chapters on the television transmitter and receiver. The two final chapters deal with broadcasting technique and a brief review of future possibilities.

The information presented is concise and accurate, as indeed one would expect from the author. No attempt is made to go into detail, and the result is a well-balanced *résumé* of this latest addition to the field of entertainment. It is excellent for the average student but insufficiently detailed for the specialist. J. R.

Shadow and Diffusion in Illuminating Engineering. By Konrad Norden, Ph.D., F.I.E.S.
(Pitman. 25s. Pp. 165.)

This book has been based upon the researches of engineers, physicists, physiologists, and experimental psychologists, and affords a purely engineering approach to this subject. It is to be recommended only for those interested in factory and building illumination and who have some reasonable knowledge of the subject to start off with. Within these limits it makes a fairly extensive survey, covering most of the present knowledge and technique.

The book contains a most up-to-date Glossary of Special Terms used in Shadow Engineering which are excluded from B.S.S. 233—1932, and incorporates a very detailed Bibliography. These enable the author to pursue his theme without distraction.

Starting off with definitions, the author has devoted the greater part of the book to the fundamentals of the subject, discussing the nature of shadows, their variety and formation from many different aspects, and generally acquainting the reader with all points in this new and, at the moment, most specialized subject. The second part of the book deals with the technical applications of this kind of work, the measurement of shadow and diffusion, their evaluation in illumination design, and their use in all types of work done under artificial lighting.

Altogether, the book is most enlightening and should prove a useful guide to more advanced work on the subject; it is well illustrated and only falls down in places where punctuation has been omitted occasionally and which temporarily halts the reader in his stride. F. G.